

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii

Site Elevation

20 ft

Site **Punaluu Black Sand Beach Park** Site # **1**

Whale Spotting Probability

MED/HI 2.10

Surface Activity Index

N/A

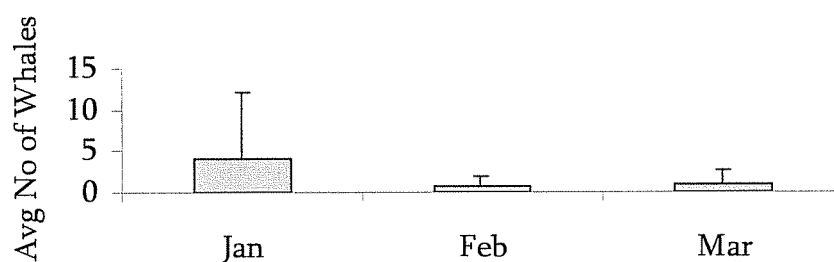


Figure 47 and Table 82. Average number of whales (+Standard Deviation in graph) counted at Punaluu Black Sand Beach Park during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	0	2	0
2003	16	0	3
2004	0	-	-
2005	0	0	0

Table 83. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Punaluu Black Sand Beach Park over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	-	-	-	-	-	-
2003	-	-	-	-	-	-
2004	-	-	-	-	-	-
2005	<i>0.00</i>	<i>0.00</i>	-	-	-	-
Avg	<i>0.00</i>	<i>0.00</i>	-	-	-	-

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 20 ft
 Site Ka Lae Park Site # 2

Whale Spotting Probability HIGH 5.64
 Surface Activity Index MED/L 0.39

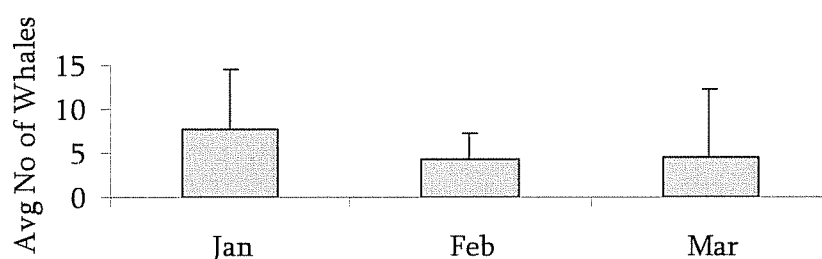


Figure 48 and Table 84. Average number of whales (+Standard Deviation in graph) counted at Ka Lae Park during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	9	6	16
2003	17	6	2
2004	2	-	0
2005	3	1	0

Table 85. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Ka Lae Park over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	0.05	0.01	0.06	0.37	0.04	0.50
2003	0.08	0.99	-	-	-	-
2004	0.83	1.28	-	-	-	-
2005	0.32	2.44	0.17	0.00	-	-
Avg	0.32	1.18	0.12	0.19	0.04	0.50

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 800 ft
 Site Milolii Lookout Site # 3

Whale Spotting Probability MED/L 0.38
 Surface Activity Index MED/HI 1.41

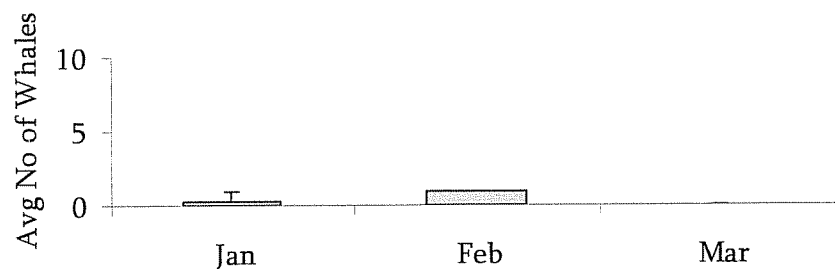


Figure 49 and Table 86. Average number of whales (+Standard Deviation in graph) counted at Milolii Lookout during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	-	-	-
2003	0	1	0
2004	1	-	0
2005	0	1	0

Table 87. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Milolii Lookout over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	-	-	-	-	-	-
2003	-	-	0.12	0.27	-	-
2004	-	-	-	-	-	-
2005	-	-	1	4.25	-	-
Avg	-	-	0.56	2.26	-	-

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 20 ft
 Site Hookena Beach Park Site # 4

Whale Spotting Probability LOW 0.33

Surface Activity Index LOW 0.28

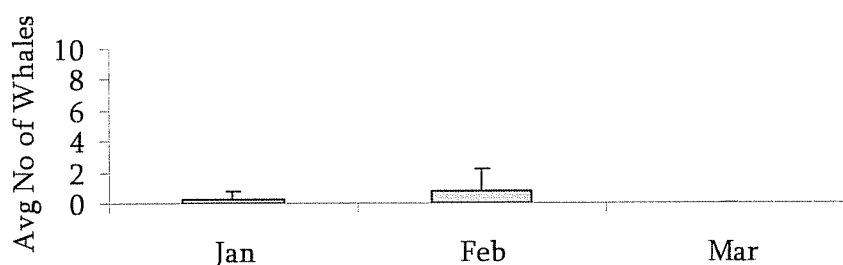


Figure 50 and Table 87. Average number of whales (+Standard Deviation in graph) counted at Hookena Beach Park during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	0	0	0
2003	0	3	0
2004	1	0	0
2005	0	0	0

Table 89. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Hookena Beach Park over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	-	-	-	-	-	-
2003	0.5	1.00	0.12	0.27	-	-
2004	0.00	0.00	-	-	-	-
2005	-	-	0.00	0.33	-	-
Avg	0.25	0.50	0.06	0.30	-	-

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 20-40 ft
 Site Honaunau Site # 5
 Whale Spotting Probability HIGH 1.09
 Surface Activity Index LOW 0.31

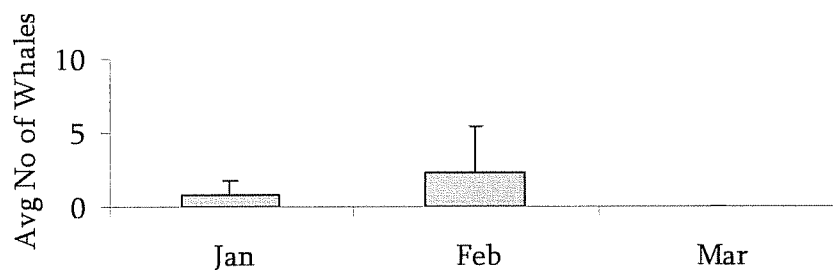


Figure 51 and Table 90. Average number of whales (+Standard Deviation in graph) counted at Honaunau during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	2	7	0
2003	0	1	-
2004	0	0	0
2005	1	1	0

Table 91. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Honaunau over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	-	-	0.05	0.35	0.00	0.25
2003	-	-	0.00	0.08	-	-
2004	-	-	-	-	0.00	1.00
2005	0.00	0.00	0.00	3.33	-	-
Avg	0.00	0.00	0.02	1.25	0.00	0.63

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 450 ft
 Site Keauhou Scenic Lookout Site # 6

Whale Spotting Probability MED/HI 1.09

Surface Activity Index LOW 0.28

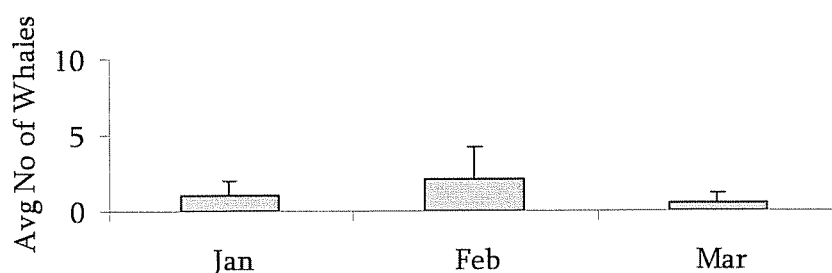


Figure 52 and Table 92. Average number of whales (+Standard Deviation in graph) counted at Keauhou Scenic Lookout during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	0	1	0
2003	2	4	1
2004	1	-	1
2005	2	0	0

Table 93. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Keauhou Scenic Lookout over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	1.41	0.67	0.07	0.66	0	0.25
2003	0.08	0.99	0.23	0.1	0.17	0.5
2004	0.32	0	-	-	0	0
2005	0	0.06	0.33	0	-	-
Avg	0.45	0.43	0.21	0.25	0.06	0.25

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 20 ft
 Site Keahole Point/Natural Energy Lab (OTEC) Site # 7

Whale Spotting Probability MED/HI 2.09
 Surface Activity Index MED/HI 0.51

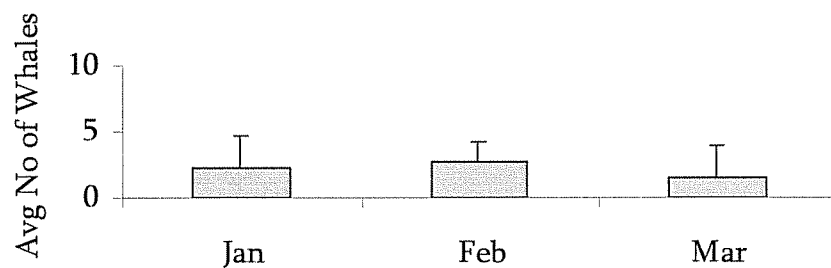


Figure 53 and Table 94. Average number of whales (+Standard Deviation in graph) counted at Keahole Point/Natural Energy Lab (OTEC) during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	1	1	5
2003	6	3	1
2004	1	-	0
2005	1	4	0

Table 95. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Keahole Point/Natural Energy Lab (OTEC) over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	0.4	0	0.22	0.36	0.4	0.19
2003	0.05	0.31	0.94	0.66	1	0.8
2004	0.11	1.74	-	-	-	-
2005	0	0	0.57	0.81	-	-
Avg	0.14	0.51	0.58	0.61	0.7	0.5

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 10 ft
 Site Hualalai (Four Seasons Resort) Site # 8

Whale Spotting Probability MED/HI 1.50

Surface Activity Index MED/HI 0.67

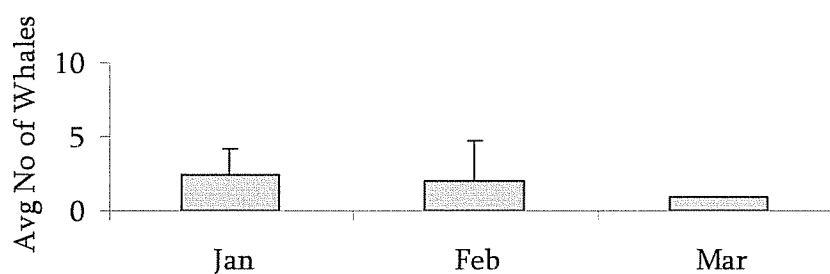


Figure 54 and Table 96. Average number of whales (+Standard Deviation in graph) counted at Hualalai (Four Seasons Resort) during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	1	1	1
2003	2	6	1
2004	5	0	1
2005	2	1	1

Table 97. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Hualalai (Four Seasons Resort) over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	0.26	0.27	0.44	0.48	0.15	0.5
2003	0.16	0.25	0.44	0.21	-	-
2004	0.41	0.38	-	-	0.15	0.23
2005	0.16	0.22	0.7	3.73	0.17	3.33
Avg	0.25	0.28	0.53	1.47	0.16	1.35

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 120 ft
 Site Puukohola Heiau National Park Site # 9

Whale Spotting Probability HIGH 3.86

Surface Activity Index MED/L 0.41

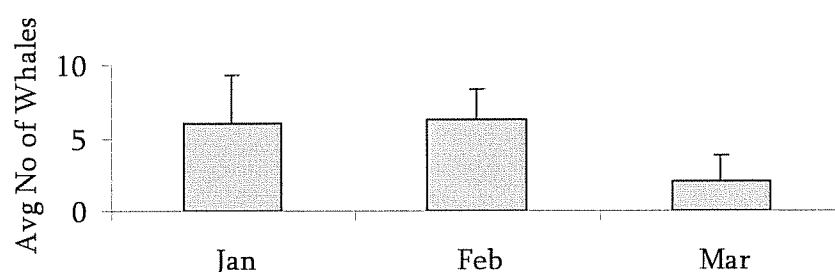


Figure 55 and Table 98. Average number of whales (+Standard Deviation in graph) counted at Puukohola Heiau National Park during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	5	8	4
2003	4	7	0
2004	11	-	3
2005	4	4	1

Table 99. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Puukohola Heiau National Park over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	0.14	0.76	-	-	0.07	0.52
2003	0.36	0.14	0.13	0.15	-	-
2004	0.2	0.5	-	-	0.44	0.81
2005	0.14	0.16	0.28	1.4	0.64	0.14
Avg	0.21	0.39	0.21	0.77	0.38	0.49

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 180 ft
 Site Mile Marker 7 Site # 10
 Whale Spotting Probability HIGH 5.75
 Surface Activity Index LOW 0.34

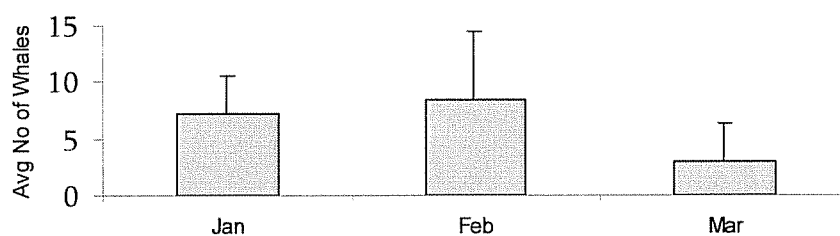


Figure 56 and Table 100. Average number of whales (+Standard Deviation in graph) counted at Mile Marker 7 during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	5	8	2
2003	11	17	8
2004	9	4	1
2005	4	5	1

Table 101. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Mile Marker 7 over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	0.22	0.36	0.29	0.21	0.04	0.17
2003	0.2	0.03	0.21	0.24	0.14	0.48
2004	-	-	0.23	0.27	0.17	1
2005	0.23	1.08	0.95	0.28	0.26	0.32
Avg	0.22	0.49	0.42	0.25	0.15	0.49

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii

Site Elevation

100 ft

Site Lapakahi State Historical Park Site # 11

Whale Spotting Probability

HIGH 5.43

Surface Activity Index

MED/L 0.43

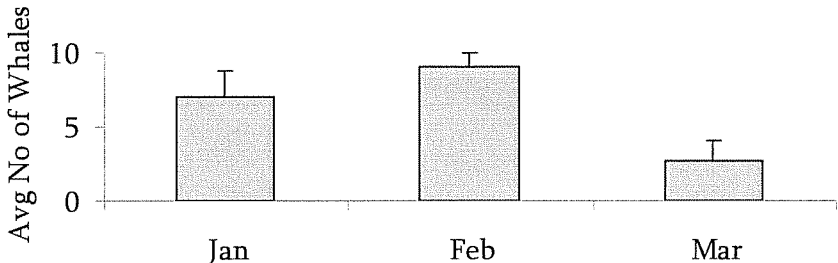


Figure 57 and Table 102. Average number of whales (+Standard Deviation in graph) counted at Lapakahi State Historical Park during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	6	9	3
2003	5	10	4
2004	9	-	3
2005	8	8	1

Table 103. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Lapakahi State Historical Park over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	<i>0.11</i>	<i>0.45</i>	<i>0.09</i>	<i>0.46</i>	<i>0.15</i>	<i>0.72</i>
2003	<i>0.02</i>	<i>0.11</i>	<i>0.69</i>	<i>1.51</i>	<i>0.06</i>	<i>0.37</i>
2004	<i>0.03</i>	<i>0.49</i>	-	-	<i>0.06</i>	<i>1.65</i>
2005	<i>0.07</i>	<i>0.19</i>	<i>0.7</i>	<i>1.03</i>	-	-
Avg	<i>0.06</i>	<i>0.31</i>	<i>0.49</i>	<i>1</i>	<i>0.09</i>	<i>0.77</i>

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

5

Island Hawaii Site Elevation 20 ft

Site Kapaa Beach Park Site # 12

Whale Spotting Probability HIGH 6.00

Surface Activity Index MED/HI 0.63

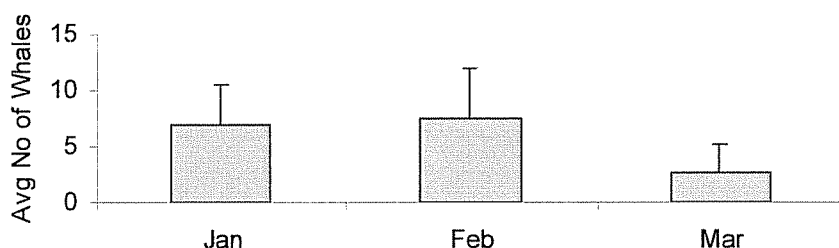


Figure 58 and Table 104. Average number of whales (+Standard Deviation in graph) counted at Kapaa Beach Park during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	12	13	2
2003	6	9	6
2004	4	3	3
2005	6	5	0

Table 105. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Kapaa Beach Park over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	1.83	0.90	0.32	0.27	0.37	0.56
2003	0.09	0.49	1.19	2.57	0.08	0.03
2004	1.72	0.52	0.55	0.05	0.10	0.28
2005	0.29	0.00	0.80	0.07	2.00	0.00
Avg	0.98	0.48	0.72	0.74	0.64	0.22

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island	Hawaii	Site Elevation	20-40 ft
Site	Old Coast Guard Road	Site #	13

Whale Spotting Probability	HIGH	6.80
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Surface Activity Index	MED/HI	0.60
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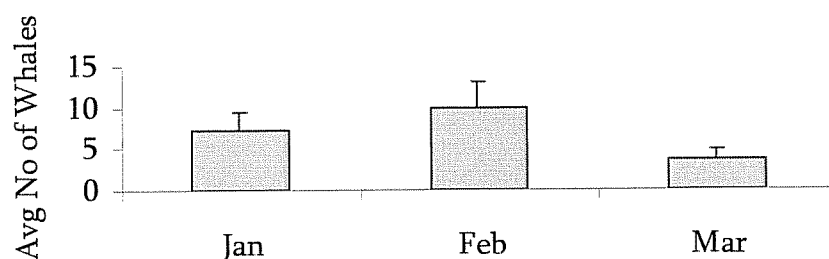


Figure 59 and Table 106. Average number of whales (+Standard Deviation in graph) counted at Old Coast Guard Road during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	10	10	5
2003	6	13	3
2004	8	-	3
2005	5	7	-

Table 107. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Old Coast Guard Road over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	-	-	<i>0.99</i>	<i>0.87</i>	-	-
2003	-	-	-	-	-	-
2004	-	-	-	-	-	-
2005	-	-	<i>0.30</i>	<i>0.24</i>	-	-
Avg	-	-	<i>0.65</i>	<i>0.55</i>	-	-

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 40 ft
 Site Upolu Point Site # 14

Whale Spotting Probability HIGH 11.33
 Surface Activity Index MED/HI 1.40

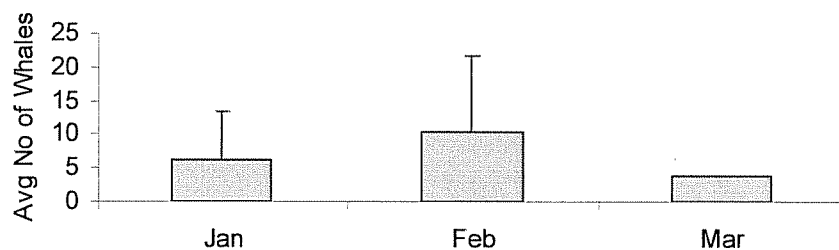


Figure 60 and Table 108. Average number of whales (+Standard Deviation in graph) counted at Upolu Point during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	14	23	4
2003	-	7	-
2004	0	-	-
2005	5	1	-

Table 109. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Upolu Point over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	0.59	0.51	1.42	2.27	-	-
2003	-	-	4.39	1.30	-	-
2004	-	-	-	-	-	-
2005	0.58	2.64	0.50	0.46	-	-
Avg	0.59	1.58	2.10	1.34	-	-

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 880 ft
 Site Waipio Valley Lookout Site # 15

Whale Spotting Probability MED/L 0.40

Surface Activity Index MED/L 0.47

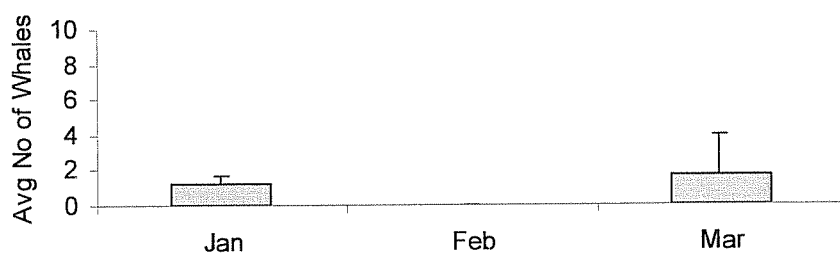


Figure 61 and Table 110. Average number of whales (+Standard Deviation in graph) counted at Waipio Valley Lookout during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	1	0	0
2003	2	0	1
2004	1	-	1
2005	1	0	5

Table 111. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Waipio Valley Lookout over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	0.00	0.11	-	-	-	-
2003	-	-	1.29	0.71	1.20	0.00
2004	0.50	0.17	-	-	-	-
2005	0.29	0.67	0.00	0.00	-	-
Avg	0.26	0.32	0.65	0.36	1.20	0.00

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii

Site Elevation

400 ft

Site Laupahoehoe Scenic Lookout Site # 16

Whale Spotting Probability

MED/HI 1.60

Surface Activity Index

LOW 0.21

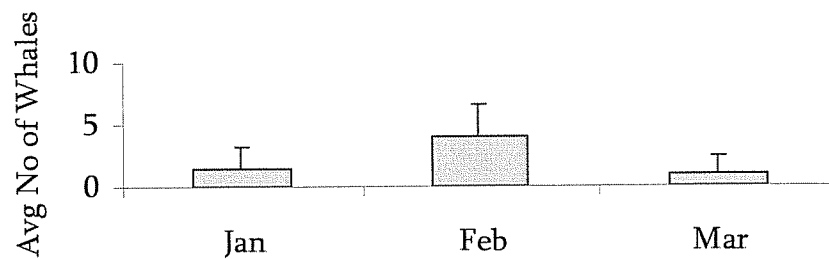


Figure 62 and Table 112. Average number of whales (+Standard Deviation in graph) counted at Laupahoehoe Scenic Lookout during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	4	1	0
2003	1	6	1
2004	0	-	0
2005	1	5	3

Table 113. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Laupahoehoe Scenic Lookout over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	-	-	-	-	0.67	0.00
2003	-	-	0.55	0.27	0.86	0.86
2004	0.00	0.00	-	-	0.33	0.33
2005	0.00	0.00	0.01	0.05	0.12	0.00
Avg	0.00	0.00	0.28	0.16	0.50	0.30

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 0 ft

Site Onekahakaha Beach Park Site # 17

Whale Spotting Probability HIGH 7.17

Surface Activity Index MED/HI 0.55

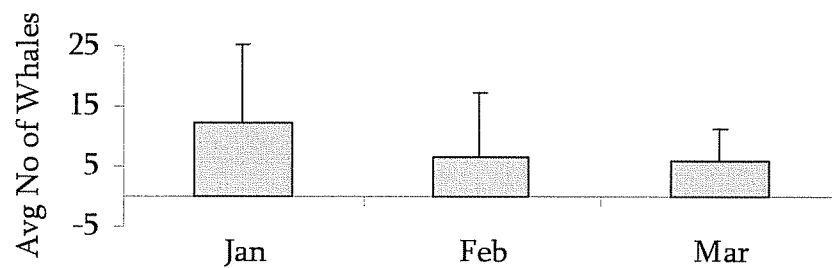


Figure 63 Table 114. Average number of whales (+Standard Deviation in graph) counted at Onekahakaha Beach Park during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	8	0	12
2003	31	22	9
2004	1	0	0
2005	9	5	3

Table 115. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Onekahakaha Beach Park over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	1.14	0.14	-	-	0.66	0.15
2003	-	-	0.46	0.14	0.35	0.57
2004	0.48	0.08	0.56	1.78	0.67	0.00
2005	0.11	1.50	0.95	0.40	0.29	0.09
Avg	0.58	0.57	0.66	0.77	0.49	0.20

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 40 ft
 Site Kumukahi Lighthouse Site # 18

Whale Spotting Probability MED/HI 3.80
 Surface Activity Index LOW 0.19

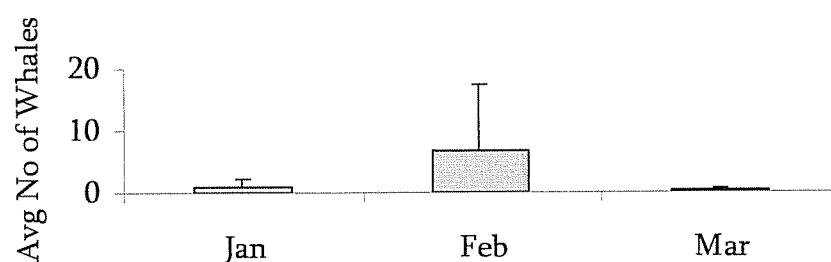


Figure 64 and Table 116. Average number of whales (+Standard Deviation in graph) counted at Kumukahi Lighthouse during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	0	19	0
2003	3	0	0
2004	0	-	0
2005	1	1	1

Table 117. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Kumukahi Lighthouse over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	0.25	0.00	-	-	0.18	0.71
2003	0.00	0.00	-	-	-	-
2004	-	-	-	-	-	-
2005	0.00	0.55	0.00	0.00	-	-
Avg	0.08	0.18	0.00	0.00	0.18	0.71

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island Hawaii Site Elevation 60 ft
 Site Kehena Lookout Site # 19

Whale Spotting Probability LOW 0.40

Surface Activity Index LOW 0.14

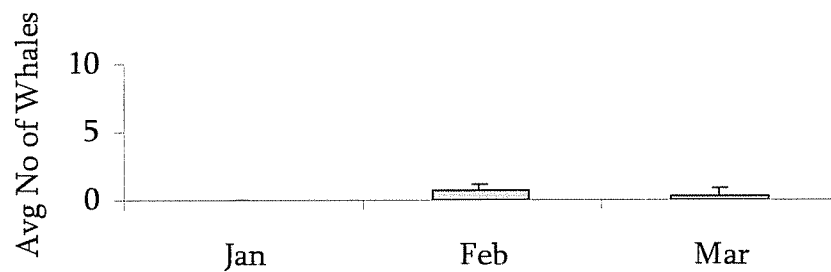


Figure 65 and Table 118. Average number of whales (+Standard Deviation in graph) counted at Kehena Lookout during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	0	1	0
2003	0	0	1
2004	0	-	0
2005	0	1	-

Table 119. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Kehena Lookout over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	-	-	0.50	0.00	-	-
2003	-	-	-	-	0.25	0.00
2004	-	-	-	-	-	-
2005	0.00	0.00	0.00	0.67	-	-
Avg	0.00	0.00	0.25	0.33	0.25	0.00

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island	Hawaii	Site Elevation	30-40 ft
Site	Kaena Point	Site #	20
Whale Spotting Probability	LOW	0.40	
Surface Activity Index	MED/L	0.50	

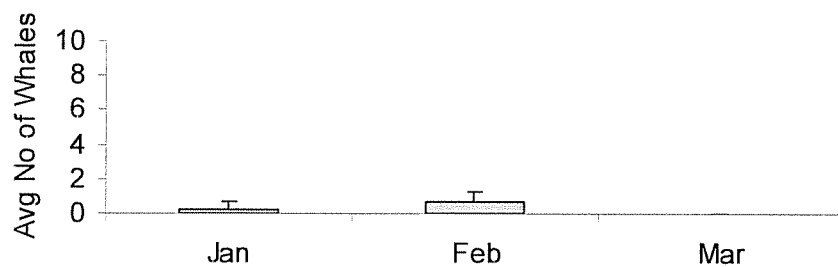


Figure 66 and Table 120. Average number of whales (+Standard Deviation in graph) counted at Kaena Point during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	1	1	0
2003	0	1	0
2004	0	-	0
2005	0	0	0

Table 121. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Kaena Point over the sampling period.

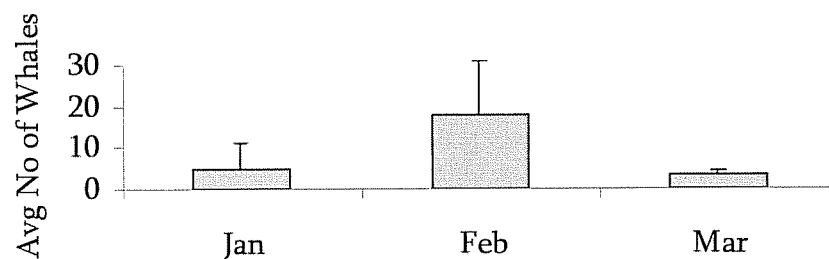
	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	-	-	-	-	-	-
2003	-	-	-	-	-	-
2004	0.00	0.00	-	-	-	-
2005	1.00	0.00	-	-	-	-
Avg	1.00	0.00	-	-	-	-

130 ft

Site # 21

HIGH 12.25

HIGH 2.04



Year	Month		
	Jan	Feb	Mar
2002	3	33	2
2003	0	10	4
2004	-	-	-
2005	12	10	4

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	<i>0.94</i>	<i>5.20</i>	-	-	<i>0.50</i>	<i>5.20</i>
2003	-	-	-	-	-	-
2004	-	-	-	-	-	-
2005	<i>1.89</i>	<i>3.15</i>	<i>1.07</i>	<i>2.28</i>	<i>0.17</i>	<i>0.70</i>
Avg	<i>1.42</i>	<i>4.17</i>	<i>1.07</i>	<i>2.28</i>	<i>0.34</i>	<i>2.95</i>

Distribution Patterns and Behaviors of Humpback Whales around Oahu, Kauai, Hawaii and Kahoolawe: 2002-2005

Island	Hawaii	Site Elevation	265 ft
Site	Ookala	Site #	22
Whale Spotting Probability	HIGH	2.25	
Surface Activity Index	LOW	0.31	

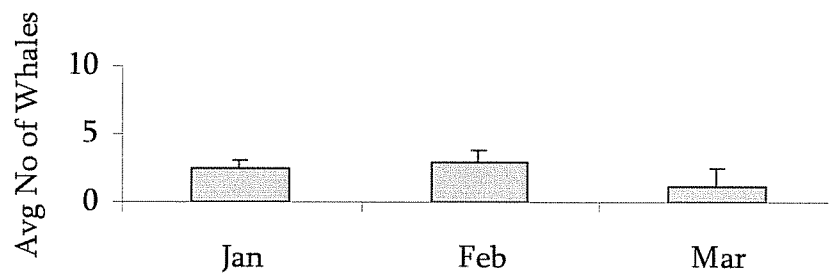


Figure 68 and Table 124. Average number of whales (+Standard Deviation in graph) counted at Ookala during nine 15-minute periods between 08:00 am and 12:15 pm between January and March 2002-2005.

Year	Month		
	Jan	Feb	Mar
2002	3	3	0
2003	2	4	3
2004	2	2	1
2005	3	3	1

Table 125. Average number of breaches and body slaps (used as an index of whale surface activity) per whale at Ookala over the sampling period.

	Jan		Feb		Mar	
	Breach	Slap	Breach	Slap	Breach	Slap
2002	-	-	0.10	0.37	-	-
2003	-	-	0.46	0.14	-	-
2004	0.00	0.00	-	-	0.14	0.14
2005	0.98	0.17	0.08	0.79	1.00	0.00
Avg	0.49	0.08	0.21	0.43	0.57	0.07

